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| EXAMINER | |
|---|---|
| STRANGE, AARON N | |
| ART UNIT | PAPER NUMBER |
| 2153 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/904,646 | CRUTCHER ET AL. | |
| | Examiner | Art Unit | |
| | Aaron Strange | 2153 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *30 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 12/28/2005 have been fully considered but they are not persuasive.

2. With regard to claims 1,20 and 26, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant has merely provided a general assertion that the prior art of record fails to disclose some claim limitations. The Examiner respectfully disagrees, and the rationale has been set forth below.

3. With regard to claims 7,8,32 and 33, and Applicant's argument that the rejection is an "impermissible piece-meal attack", the Examiner respectfully disagrees. Applciant's claims merely combine elements from several well-known systems into a single claim. The Examiner has clearly and explicitly provided motivation to combine each of the cited references.

With regard to Applicant's assertion that "there is no motivation to combine Sasaki as suggested since the claim embodiments **do not** relate to enabling WAP devices" (emphasis by Applicant), the Examiner respectfully disagrees. The claims do not preclude WAP devices from using the proxy. WAP devices are old and well known

devices that may access the Internet using a proxy (Sasaki, Fig 1). Applicant has provided no reason to believe that it "would not be obvious or necessarily sensible" to allow these devices to access a proxy incorporating the claimed features. To the contrary, it would be both obvious and advantageous to allow then to do so, for at least the reasons set forth in the rejection below.

### *Claim Objections*

4. Claim 43 objected to because of the following informalities: It depends from claim 41 and is separated from claims 41 by claim 42, which does not depend from claim 41. Based on Applicant's remarks (Page 18), it appears that Applicant intended for claim 43 to depend from claim 42.

### *Claim Rejections - 35 USC § 101*

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 26-40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

7. With regard to claims 26-40, the claimed "machine accessible medium" is not limited to statutory subject matter. The relevant portion of the specification (Page 11, Line 22 to Page 12, Line 6) describes several mediums which are readable by the

disclosed machine. These include "transmission environments", which are non-statutory.

The Examiner recommends amending the claim to recite a "machine readable ' storage media", since storage media are described separately in the specification.

### *Claim Rejections - 35 USC § 112*

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 42 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation "validating client authorization to have the resource locator de-obscured" is not described in the specification. The closest portion of the specification located by the Examiner is at page 7, lines 13-20, which described authenticating the client to ensure that the client may request resources and an authentication manager that "authenticated the client against the resource desired by the client".

These portions are different from and do not provide support for validating client authorization to have the *resource locator* (part of the request) de-obscured. They merely provide support for validating whether the client may access the resource.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-6,9,10,12-31, 34, 35,37-40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Netscape in view of Goldberg et al. in further view of Rodriguez et al.

12. With regard to claims 1,20, and 26, Netscape discloses a method for a proxy to transparently provide access to resources of a resource manager, comprising:

receiving from the client a resource locator (URL) for retrieving a resource of a selected resource manager, wherein the resource locator comprises a network address of the resource manager (Chapter 7, Page 1, Lines 12-13);

retrieving the resource from the resource manager according to the resource locator (Chapter 7, Page 1, Lines 16-19); and

providing the resource to the client such that it appears to have originated from the proxy (Chapter 7, Page 1, Lines 14-15). Netscape fails to disclose that the resource locator is at least partially obscured to hide the network address, de-obscuring the resource locator, or retrieving a first and second portion of the resource from a first and second resource manager disposed within different machines.

Goldberg et at. (Goldberg, hereafter) teaches a method of obscuring and de-obscuring a resource locator to disguise the actual location of the resource manager from the client. The obscured URL directs the client to the proxy, which de-obscures it and retrieves the resource on behalf of the client (Page 6, Col 2, Line 24 to Page 7, Col 1, Line 5). This would have been an advantageous addition to the system disclosed by Netscape since it allows increased security by hiding the actual location of the resource manager from the client. A further advantage is the ability for documents to be published anonymously through the proxy, since the actual location of the document is obscured from the client.

Rodriguez teaches the use of multiple resource managers, disposed within different machines, mirroring the same resources and retrieving portions of a requested resource from a plurality of the resource managers simultaneously. The file is partitioned into blocks, and each block is requested from a different resource manager (Page 1, Col 2, Line 34 to Page 1, Col 1, Line 3). This would have been an advantageous addition to the system disclosed by Netscape and Goldberg since it can dramatically decrease the time it takes for the client to receive a file.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to partially obscure the resource locator to hide the actual location of the resource manager, and de-obscure the resource locator at the proxy to enable retrieval of the resource for the client. This provides increased network security since the resource locator available to the public is very difficult to associate with an actual server, making it difficult to attack the server or determine the origin of anonymously published documents. It would have also been obvious to use multiple resource managers to host the resources and retrieve a portion of the resource from each resource manager. This would have dramatically decreased the time it took for the client to receive a requested resource.

13. With regard to claims 3,21, and 28, Netscape further discloses receiving a first proxy header corresponding to the request, the first proxy header identifying the client as the source of the request and the proxy as the source of the resource; and preparing a second proxy header by rewriting the first proxy header so as to substitute the proxy for the client, and the resource manager for the proxy; wherein retrieving the resource from the resource manager comprises providing the second proxy header to the resource manager (Chapter 7, Page 1, Line 11 to Page 2, Line 2). Since the firewall only allows access to the content server by the proxy on a specific port, the header must be rewritten so the firewall thinks the request originates from the proxy.

14. With regard to claims 4,22, and 29, Netscape further discloses receiving a third proxy header from the resource manager, the third proxy header identifying the resource manager as the source of the resource, and the proxy as the recipient of the resource; and preparing a fourth proxy header by rewriting the third proxy header so as to substitute the proxy as the source of the resource, and the client as the recipient of the resource; wherein providing the resource to the client comprises providing the fourth proxy header to the client (The proxy sends the response to the client, as if it were the actual content sever) (Chapter 7, Page 1, Lines 18-22).

15. With regard to claims 5 and 30, Netscape further discloses that the proxy headers are written according to a tag based protocol (Requests for URLs are HTTP) (Chapter 7, Page 5, Lines 1-8).

16. With regard to claims 6 and 31, Netscape further discloses that the tag based protocol is a selected one of: the HyperText Transport Protocol (HTTP), the HyperText Markup Language (HTML), and the extensible Markup Language (XML) (Requests for URLs are HTTP) (Chapter 7, Page 5, Lines 1-8).

17. Claims 9 and 34 are rejected for the reasons cited above regarding claim 1, since the first and second resource managers may be from a group consisting of any number of resource managers.

18. With regard to claims 10 and 35, Rodriguez further discloses that the portions are retrieved in parallel from the selected ones of the multiple resource managers (Page 1, Col 2, Line 34).

19. With regard to claims 12 and 37, Rodriguez further discloses that the portions are non-overlapping portions of the resource (Each block is a different part of the file) (Page 1, Col 2, Line 34).

20. With regard to claims 13,23, and 38 Goldberg further discloses that the resource locator comprises a Uniform Resource Locator (URL); and inspecting the URL for a path component (the ! character) indicating the URL comprises the at least partially obscured portion (Page 6, Col 2, Line 37 to Page 7, Col 1, Line 3).

21. With regard to claim 14, Goldberg further discloses that de-obscuring the resource locator comprises providing at least the obscured portion of the resource locator to a location manager and receiving a de-obscured identifier responsive thereto (Obscured portion is decrypted) (Page 6, Col 2, Line 37 to Page 7, Col 1, Line 3).

22. With regard to claim 15, Netscape further discloses that the location manager performs the validating client authorization to access the resource (Chap 14, Page 3, Lines 9-11).

23. With regard to claim 16, Netscape further discloses that validating client authorization to access the resource comprises providing at least the partially obscured portion of the resource locator (URL), and an identity identifier for the client to an authorization manager (Resources are restricted or allowed based on user identification) (Chap 5, Page 4, Lines 40-47).

24. With regard to claims 17,24, and 39, Netscape further discloses hash-encoding an identity value associated with the client (creation of SSL certificate); and providing the hash-encoded identity value (SSL certificate) and at least a portion of the resource locator (URL) to an authorization manager configured to look up the hash-encoded identity value and the at least a portion of the resource locator in an access control table. (Resources are restricted or allowed based on user identification) (Chap 5, Page 4, Lines 40-47).

25. With regard to claims 18,25, and 40, Netscape further discloses that the client communicates with the proxy by way of an Internet browser (Netscape Navigator) (Chap 14, Page 2, Lines 22-24).

26. With regard to claims 2,19, and 27 while the system disclosed by Netscape, Goldberg, and Rodriguez shows substantial features of the claimed invention (discussed with regard to claim 3), it fails to specifically recite that the proxy comprises a front end manager and a back end manager, wherein the client only communicates with

the front end manager for obtaining the resource, and wherein the back end manager obtains the resource from the resource manager.

However, since the proxy server acts as a front-end to the content server and all communications between the client and the content server go through the proxy without knowledge of each other's existence; a front-end manager and a back-end manager must be present. The proxy has two separate interfaces, each of which requires a separate IP address. A front-end manager must be present to handle communications with the client through the front-end interface and a back-end manager must be present to handle communications with the back-end server through the back-end interface.

27. Claim 43 is rejected under the same rationale as claims 1,20 and 26, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

28. Claims 7,8,32,33,41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Netscape in view of Goldberg et al. in further view of Rodriguez et al. in further view of Sasaki (US 2001/0013070).

29. With regard to claims 7,8,32, and 33, while the system disclosed by Netscape, Goldberg, and Rodriguez shows substantial features of the claimed invention (discussed above), it fails to disclose that the first proxy header comprises a content

type identifier identifying a desired format for the resource, and wherein the resource manager stores the resource in a second format different from the desired format, the method further comprising: converting the resource from the second format to the first format.

Sasaki teaches the use of content identifiers in a proxy header (Page 3, Par 53) as a means to inform the proxy of the desired format for the resource. If the resource retrieved by the proxy from the content server is in a different format, it is converted prior to being sent to the client (Pages 3-4, Par 53-57). This would have been an advantageous addition since it would have allowed clients to specify content restrictions and preferences and the proxy server would have converted the retrieved content appropriately.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the client to specify formatting information for requested content and have the proxy server convert the retrieved content so that it is in an acceptable format for the client. This would have allowed clients with limited display capabilities, such as PDA, to access a traditional web site by having the proxy server convert the site into an acceptable format for display on the PDA.

30. With regard to claims 41 and 43, while the system disclosed by Netscape, Goldberg, and Rodriguez shows substantial features of the claimed invention (discussed above), it fails to disclose transcoding at least a portion of said retrieved resource received in a first format to a second format.

Sasaki teaches transcoding at least a portion of a retrieved resource received in a first format to a second format (at least ¶53-57 and 63-67). This would have been an advantageous addition since it would have allowed allows clients to specify content restrictions and preferences and the proxy server would have transcoded the retrieved content appropriately.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the client to specify formatting information for requested content and have the proxy server transcode the retrieved content so that it is in an acceptable format for the client. This would have allowed clients with limited display capabilities, such as PDA, to access a traditional web site by having the proxy server convert the site into an acceptable format for display on the PDA.

31. Claims 11 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Netscape in view of Goldberg et al. in further view of Rodriguez et al. in further view of Applicant's admitted prior art.

32. With regard to claims 11 and 36, while the system disclosed by Netscape, Goldberg, and Rodriguez shows substantial features of the claimed invention (discussed above), it fails to disclose determining loads for the multiple resource managers and selecting among the multiple resource managers according to the loads.

Applicant admits that load balancing techniques are old and well-known in the

art. (Specification, Page 3, Lines 19-22 and Page 5, Lines 21-23) (Remarks, Page 16, Lines 1-9). Such techniques are useful for selecting servers with reduced load since they will be able to respond more quickly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determining loads for the multiple resource managers and selecting among the multiple resource managers according to the loads since the resource managers with the smallest loads will be able to respond the quickest.

***Conclusion***

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS
2/5/07

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